



Aquaculture Health Management

Cefas is a global leader in aquaculture science, offering expertise in aquatic animal health and environmental health. We also have extensive experience of aquaculture regulation.

Our expert teams offer practical outcomes to any issue, with expertise in aquatic disease diagnostics, risk assessment, legislative knowledge, epidemiology, biosecurity and biosafety from a UK and global perspective.

Multi-Disciplinary Approach

Our scientists offer a multi-disciplinary approach to any Aquatic Health Management issue including:

- Aquatic product evaluation
- Aquaculture health regulation
- Aquatic disease diagnosis
- Aquaculture biosecurity
- Modelling for aquaculture

Our Services

- Commercial testing services to the aquaculture industry
- Integrated disease diagnostics from molecular biology to histopathology
- Epidemiological studies
- Assessment of disease risks associated with trade in animals and their products
- Design of surveillance and aquatic animal health data management systems
- Ecotoxicological studies for the offshore oil industry, chemical producers and veterinary medicine industry



Our Expertise

Integrated Aquatic Disease Diagnosis

As the UK's largest and most diverse aquatic science centre, Cefas is uniquely positioned to provide disease investigation, diagnosis and control services for both government and commercial organisations.

Working in state-of-the-art facilities, our highly skilled team has an expansive track record in disease control and risk modelling, epidemiology and transboundary diseases. With a reputable research portfolio, our work provides a strong scientific basis for the design of surveillance programmes to detect aquatic animal diseases.

Alongside mathematical modelling, we use geographic information systems (GIS) to support our surveillance and disease control programmes.

Cefas is the UK Government's provider of a comprehensive aquatic animal health service and we have extensive expertise in national, EU and international aquatic animal health and sanitary legislation. Our experts also regularly advise Defra and are actively involved in EU and the World Organisation of Animal Health (OIE) working groups.

- **Aquatic product evaluation:** efficacy, safety, environmental impact, stability, and proof of concept testing of new vaccines, veterinary medicines and feeds
- **Detection of endocrine disruptors** in the aquatic environment, impact of chemicals and mixtures
- **Assessment of stress in farmed fish:** impact of co-stressors on disease susceptibility
- **Human pathogens associated with aquaculture:** diagnosis, advice, legislation and infrastructure
- **Shellfish classification** and monitoring of production areas

Quality and Designations

At Cefas we are committed to providing high quality science and services. This commitment is underpinned by our internal quality policy and a range of accreditations and certificates of quality. These include Good Laboratory Practice and Good Manufacturing Practice compliance and ISO 17020 ISO 17025, ISO 14001 and ISO 9001 accreditations.

We are also the designated laboratory for:

- OIE reference laboratory for Crayfish plague, Koi Herpesvirus (KHV), Spring Viraemia of Carp (SVC)
- OIE Collaborating Centre for aquatic animal diseases
- European and National Reference Laboratory for Crustacean Disease
- European and National Reference Laboratory for monitoring of viral and bacterial contamination of bivalve molluscs
- National Reference laboratory for finfish and shellfish disease and Anisakis



Client Case Study: Diseases in shrimp aquaculture

Funded by Innovate UK and launched in April 2015, the project is focused on the surveillance and detection of shrimp diseases in south-east Asia.

The aim of the project is to validate and apply a cutting-edge UK-based technology and a bespoke smartphone app to collect and transmit disease data from remote farms to centralised reference laboratories. Initial focus is the detection of white spot syndrome virus and early mortality syndrome.

By bringing together industry specialists and our experts in the diagnosis, pathology and epidemiology, Cefas will drastically improve detection and management of economically damaging diseases in global aquaculture.

Enquiries

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